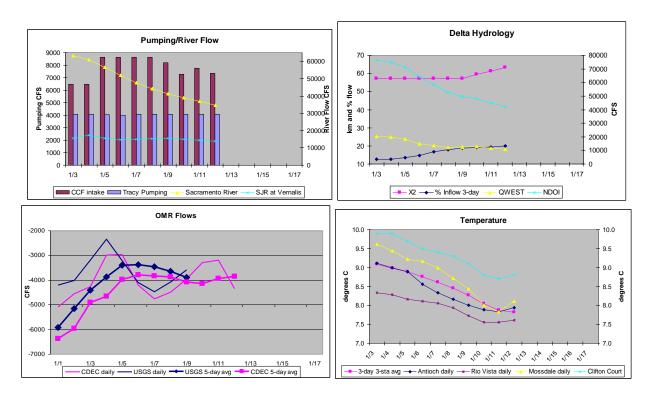
SMELT WORKING GROUP

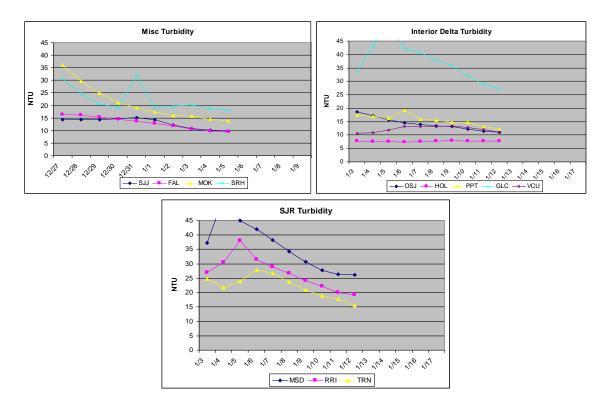
Thursday, January 13, 2011

The Working Group will continue to monitor salvage, survey data, and hydrological conditions and will reconvene January 18. No recommendation was made.

- 1) Current environmental data.
- Water temperature for the 3 station average is 7.8°C.
- OMR USGS tidally-averaged OMR was -3592 cfs on January 9, 2011. The 5-day USGS OMR was -3,898 cfs. The OMR average estimate from CDEC on January 12, 2011 is -4,350 cfs. The 5-day CDEC OMR is -3,862 cfs.
- **Flow** Sacramento River inflow is 34,548 cfs and San Joaquin 13,754 cfs. X₂ is 63.36km. As of January 12 E/I ratio is 20%, QWEST is 10,961 cfs and NDOI is 42,107 cfs. The graphs below show the most recent trends in Delta hydrology and water quality that were evaluated by the Working Group.



• **Turbidity** Three-day criterion station averages were 13.39NTU at Prisoner's Point, 7.76NTU at Holland Cut and 11.95NTU at Victoria Canal. Criteria for the implementation of Action 1 were not met or exceeded. Additionally, the Working Group reviewed turbidity data for several stations in and around the Delta.



2) Delta fish monitoring:

Spring Kodiak Trawl #1 and the Bay Studies are in the field this week. Results for SKT #1 from January 10 indicate delta smelt were collected in the south and central Delta. Two delta smelt were collected from station 914 and 1 each from stations 910, 812, and 809. The remaining data had not been collected or released at that time, but will be available for discussion at the next meeting. Smelt Larva Survey #1 will be in the field next week. The final FMWT Index is 29 for delta smelt and 191 for longfin smelt. The December FMWT collected delta smelt in the Cache Slough complex and at the confluence area. The 2010 Delta Smelt Recovery Index (based on September and October) is 11. More information on the Recovery Index can be found on the Bay-Delta Office's web site at http://www.fws.gov/sfbaydelta/ under "hot topics." Results from larval surveys, SKT, and 20mm Surveys are available online at: http://www.delta.dfg.ca.gov/delta

3) Salvage

No salvage reported for longfin smelt or delta smelt since June 2010. Criteria for the implementation of Action 1 were not met or exceeded.

4) Expected Project Operations

Combined CVP/SWP exports are at expected to remain around 11,500 to 12,000 cfs over the next few days. Vernalis flow is expected to drop to 10,000 cfs within the next few days, and is anticipated to increase again by early next week. DWR anticipates OMR flow will approach - 5,000 cfs in the coming days.

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5) Particle Tracking Modeling

The Working Group did not request or receive PTM runs for this week.

6) Discussion for Recommendation

The Working Group reviewed and discussed all relevant data from fish surveys, Delta monitoring, salvage, and planned Project operations. No recommendation was made.

The period covered by RPA Component 1, protection for pre-spawning adult delta smelt, Action 1(a) (pp 280-282 in the B.O. and Attachment B, pp 329-351), is December 1 through 20. No salvage of adult delta smelt occurred during this period during WY 2011. The Working Group may recommend an action during this period based upon examination of turbidity and salvage data, as well as parameters such as the location of X_2 , apparent abundance, and river flows. The historic likelihood of an entrainment event increases after December 20, the period covered by Component 1, Action 1(b). If turbidity criteria are met or exceeded after December 20, Action 1(b), setting average daily OMR flow no more negative than -2,000 cfs for a 14-day period, will begin. The salvage criteria for initiating an action are three consecutive days of salvage or a one-time salvage of 15 delta smelt (estimated). Component 1, Action 2 (pp 280-281 and Attachment B, pp 352-356) is implemented following the conclusion of Action 1.

The 2010 FMWT index for delta smelt is 29. This means that the authorized incidental take of adults is 210 (estimated) and the concern level is 157 (estimated), cumulative for the December through March period. The Working Group observed that irrespective of Delta conditions, Action 1 would be initiated if salvage at the export facilities occurs on three consecutive days, or exceeds 15 on any given day (B.O. p 329).

Sacramento River flows have decreased over the past week and are expected to continue to decrease. Flows on the San Joaquin River currently are at approximately 13,500 cfs and are anticipated to drop to 10,000 cfs over the weekend.

The Working Group noted that the Middle River corridor continues to exhibit greater turbidity than the Old River corridor. This sediment is thought to originate from the San Joaquin River via Turner Cut, rather than from the Sacramento River. As turbidity continues to decrease on the San Joaquin River, the readings at Victoria Canal and along the Middle River corridor should continue to decrease correspondingly. Although the 3-day average turbidity at Prisoner's Point remains greater than 12NTU, the 3-day average turbidity at both Victoria and Holland Tract are below the threshold.

The Working Group discussed some general findings from the ongoing USGS First Flush Study. During last year's pilot study the overwhelming majority of delta smelt were captured on the incoming tides. Similarly, the five fish captured in the Delta by the SKT on January 10 were all caught on the incoming tide. As the SKT and the First Flush Study use different sampling protocols, the Working Group noted that it was inappropriate to closely compare the catches from the two surveys. However, the pattern of delta smelt catches from the Turbidity Study

indicates that the majority of delta smelt are likely distributed in the western Delta and Sacramento River. The SKT catch data presently available only cover the central and south Delta, and not the distribution of the delta smelt population as a whole.

The Working Group estimated that the risk of entrainment for any fish in the central and south Delta was high, but the overall level of risk was unknown given the absence of recent distributional data. Additional distribution information from the remainder of SKT #1 will be available early next week. Hydrology remains favorable, which indicates a low level of risk for entrainment. Apparent abundance remains very low, and the recent occurrence of first flush conditions raises concern into the moderate range. Delta smelt upstream migration likely is ongoing. The risk of delta smelt entering the central and south Delta is likely to remain low, due to decreasing Delta turbidity and the anticipated level of flow for the San Joaquin River. The Working Group believes that, based upon what is known of Delta conditions, a modification of Project operations to protect delta smelt is not yet warranted.

The Working Group will reconvene on Tuesday, January 18 at 9am to review the updated flow, turbidity, and other appropriate data.

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